ANTENA TECNOLÓGICA

Boletín de novedades

Agosto - Septiembre 2015

TIC - Agro y Agroindustria

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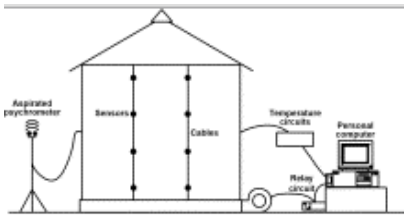
REVISTAS CIENTÍFICAS

Sistema a base de termistor para el monitoreo y control de ventilación de granos

Publicada el 01/08/2015

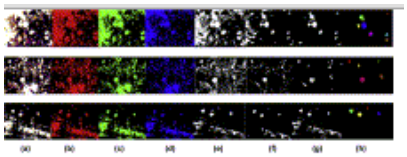


Publication date: August 2015 Source: Computers and Electronics in Agriculture, Volume 116 Author(s): Antonio José Steidle Neto, Daniela de Carvalho. Lopes Aeration is a popular tool, used to modify the grain bulk microclimate and to control the product quality. The aeration controllers are designed to provide automatic starting and stopping of aeration fans based on a selected strategy.

ver más...

Sensores y sistemas para la detección y localización de frutas

Publicada el 01/08/2015



Publication date: August 2015 Source:Computers and Electronics in Agriculture, Volume 116 Author(s): A. Gongal , S. Amatya , M. Karkee , Q. Zhang , K. Lewis This paper reviews the research and development of machine vision systems for fruit detection and localization for robotic harvesting and/or crop-load estimation of specialty tree crops including apples, pears, and citrus. Variable lighting condition, occlusions, and clustering are some of the important issues needed to be addressed for accurate detection and localization of fruit in orchard environment. To address these issues, various techniques have been investigated using different types of sensors and their combinations as well as with different image processing techniques.

ver más...

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Sistema bidireccional de adquisición de información ambiental y agrícola con indentificaciñon individual de árboles utilizando teléfonos inteligentes para la gestión de precisión de campos frutales

Publicada el 01/08/2015

Publication date: August 2015. Source: Computers and Electronics in Agriculture, Volume 116 Author(s): Jian-ping Qian , Xin-ting Yang , Xiao-ming Wu , Bin Xing , Bao-guo Wu , Ming Li An orchard precision management system plays an important role in improvement at the management level and the enhancement of decision abilities. A single orchard tree or an orchard tree microcommunity is the basic management unit, and bidirectional information on the environment and plants is the important content for precision management. A type of RFID label was applied with a UHF chip in the core and a QR code in the surface for single tree identification. A bidirectional acquisition system for orchard production, which included farming information collection for the forward direction and environmental information acquisition for the backward direction, was designed with smart phones.

ver más...

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Boletín TIC Agro

Hacia los agrobots: Identificación de las dinámicas de guiñada y seguimiento de la trayectoria de un tractor autónomo

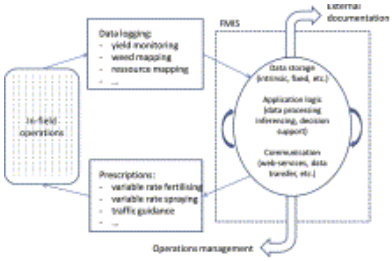
Publicada el 01/07/2015

Publication date: July 2015 Source: Computers and Electronics in Agriculture, Volume 115 Author(s): Erkan Kayacan , Erdal Kayacan , Herman Ramon , Wouter Saeys More efficient agricultural machinery is needed as agricultural areas become more limited and energy and labor costs increase. To increase their efficiency, trajectory tracking problem of an autonomous tractor, as an agricultural production machine, has been investigated in this study. As a widely used model-based approach, model predictive control is preferred in this paper to control the yaw dynamics of the tractor which can deal with the constraints on the states and the actuators in a system. The yaw dynamics is identified by using nonlinear least squares frequency domain system identification.

ver más...

Sistemas de información para la gestión agrícola: Situación actual y perspectivas futuras

Publicada el 01/07/2015



Publication date: July 2015. Source: Computers and Electronics in Agriculture, Volume 115 Author(s): S. Fountas , G. Carli , C.G. Sørensen , Z. Tsiropoulos , C. Cavalaris , A. Vatsanidou , B. Liakos , M. Canavari , J. Wiebensohn , B. Tisserye Farm Management Information Systems (FMIS) in agriculture have evolved from simple farm recordkeeping into sophisticated and complex systems to support production management. The purpose of current FMIS is to meet the increased demands to reduce production costs, comply with agricultural standards, and maintain high product quality and safety. This paper presents current advancements in the functionality of academic and commercial FMIS. The study focuses on open-field crop production and centeres on farm managers as the primary users and decision makers.

ver más...

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PUBLICACIONES CIENTÍFICAS

Enfoque metodológico para la construcción de una Geobase como apoyo a la investigación en agricultura y recursos naturales

Publicada el 01/08/2015

Publication date: August 2015 Source:Investigaciones Geográficas, Boletín del Instituto de Geografía, Volume 2015, Issue 87 Author(s): Hilda Irene Camacho Vázquez, Yolanda Margarita Fernández Ordóñez, Jesús Soria Ruiz, Miguel J. Escalona Maurice La realización de operaciones con sistemas de información geográfica (SIG) y sistemas de análisis de imágenes de satélite, producen resultados que se insertan y manejan en bases de datos geoespaciales; estos repositorios se convierten en el centro de aplicaciones, en este caso, relacionadas con la investigación en agricultura y recursos naturales. Cada sistema cuenta con un modelo de datos propio y funciones específicas de manejo de sus bases de datos. Al no existir aún un modelo de datos ni funciones estándar para esas bases de datos comúnmente aceptados, el compartir y reutilizar resultados de diversas aplicaciones es un proceso tedioso y que requiere intervención manual del usuario. Esto se dificulta porque numerosos productores de información geográfica no proporcionan suficientes datos descriptivos y concisos (metadatos) acerca de los resultados de sus trabajos.

ver más...

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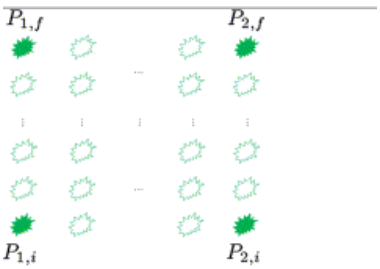
Boletín TIC Agro

Metodología de optimización para el mapeo de árboles frutales en agricultura de precisión

Publicada el 01/08/2015

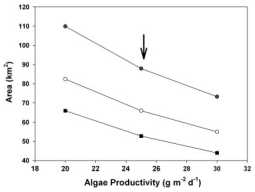


Publication date: August 2015. Source: Computers and Electronics in Agriculture, Volume 116 Author(s): Javier Gimenez , Daniel Herrera , Santiago Tosetti , Ricardo Carelli The mapping of partially structured agricultural environments is a valuable resource for precision agriculture. In this paper, a technique for the mapping of a fruit grove by a mobile robot is proposed, which uses only front laser information of the environment and the exact position of the grove corners. This method is based on solving an optimization problem with nonlinear constraints, which reduces errors inherent to the measurement process, ensuring an efficient and precise map construction. The resulting algorithm was tested in a real orchard environment.

ver más...

Identificación de locaciones para el cultivo de microalgas a gran escala en Australia Occidental: Enfoque GIS

Publicada el 01/07/2015



Publication date: 1 July 2015. Source: Applied Energy, Volume 149 Author(s): Bryan J. Boruff , Navid R. Moheimani , Michael A. Borowitzka. The decline in available fossil fuel resources coupled with an ever increasing global demand for energy, have led to substantial interest in the development of renewable biofuels. Biofuels from microalgae, especially liquid fuels produced from saline microalgae lipids (oils), are seen as an important component of the future biofuels mix.

ver más...

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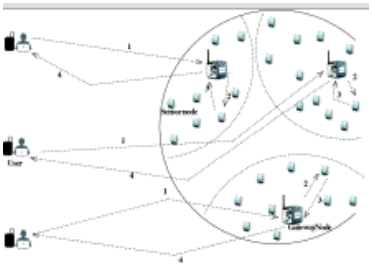
Esquema seguro de peso ligero para la autenticación de usuario y acuerdo de claves en redes de sensores inalámbricos de multi acceso

Publicada el 19/06/2015



Publication date: 19 June 2015. Source: Ad Hoc Networks Author(s): Ruhul Amin , G.P. Biswas Wireless sensor networks can be deployed in any attended or unattended environments like environmental monitoring, agriculture, military, health care etc., where the sensor nodes forward the sensing data to the gateway node. As the sensor node has very limited battery power and cannot be recharged after deployment, it is very important to design a secure, effective and light weight user authentication and key agreement protocol for accessing the sensed data through the gateway node over insecure networks. Most recently, Turkanovic et al. proposed a light weight user authentication and key agreement protocol for accessing the services of the WSNs environment and claimed that the same protocol is efficient in terms of security and complexities than related existing protocols.

ver más...

Mapeo de suelos, clasificación y modelado pedológico: Historia y orientación futura

Publicada el 16/06/2015

Publication date: 16 June 2015 Source: Geoderma Author(s): Eric C. Brevik , Costanza Calzolari , Bradley A. Miller , Paulo Pereira , Cezary Kabala , Andreas Baumgarten , Antonio Jordán Soil mapping, classification, and pedologic modeling have been important drivers in the advancement of our understanding of soil from the earliest days of the scientific study of soils. Soil maps were desirable for purposes of land valuation for taxation, agronomic planning, and even in military operations. Soil mapping required classification systems that would allow communication of mapped information, classification systems required understanding of the soil system, and gaining that understanding included the creation of soil models.

ver más...

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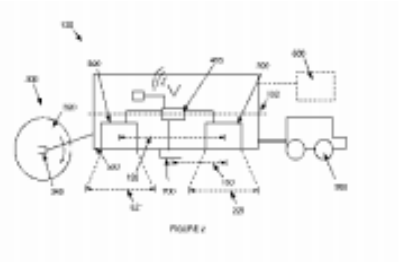
Boletín TIC Agro

PATENTES

Sistema y método de calibración odométrica automatizada para sistemas agrícolas de precisión

Publicada el 26/08/2015

A method including: recording a first image of a first field region; automatically treating a plant within the first region in-situ based on the first image; automatically verifying the plant treatment with a second image of the first region; and automatically treating a second region concurrently with treatment verification.

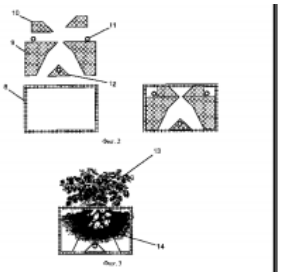


ver más...

Dispositivo y método para el cultivo intensivo de patatas

Publicada el 09/08/2015

Device comprises a rack with supports and brackets. At that the rack comprises the upper fasteners, vertical fasteners, supports with brackets for placement of containers with seedlings, containers, illuminators of LED lighting, and a collector for collecting the nutrient solution. The fasteners, including supports for the containers, are made with the ability of nutrient solution flow from the solution supply line to the collector of the nutrient solution collecting, followed by its removal, regeneration and return to the system of the solution circulation. In the method the virus-free material is obtained, the seedlings are grown to the size standard for this container, the seedlings are planted in a sterilised container and the nutrient solution flow through the container is carried out.



ver más...

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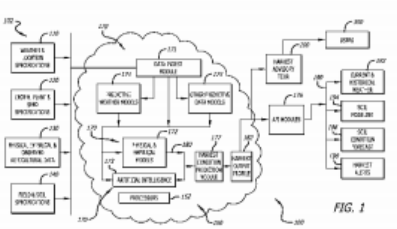
Boletín TIC Agro

Modelado de costos asociados al secado en el campo y en base a combustible de un producto agrícola que requiere suficientemente bajos niveles de humedad para el almacenamiento de las cosechas a largo plazo utilizando análisis a nivel de campo y pronóstico de las condiciones climáticas

Publicada el 20/07/2015



A modeling framework for evaluating the impact of weather conditions on farming and harvest operations applies real-time, field-level weather data and forecasts of meteorological and climatological conditions together with user-provided and/or observed feedback of a present state of a harvest-related condition to agronomic models and to generate a plurality of harvest advisory outputs for precision agriculture. A harvest advisory model simulates and predicts the impacts of this weather information and user-provided and/or observed feedback in one or more physical, empirical, or artificial intelligence models of precision agriculture to analyze crops, plants, soils, and resulting agricultural commodities, and provides harvest advisory outputs to a diagnostic support tool for users to enhance farming and harvest decision-making, whether by providing pre-, post-, or in situ-harvest operations and crop analyzes.

ver más...

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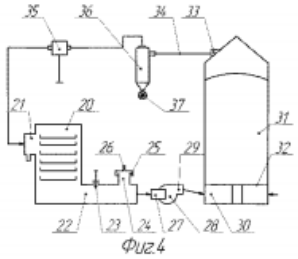
Boletín TIC Agro

Sistema complejo de monitoreo remoto y diagnóstico del estado de los granos durante el almacenamiento

Publicada el 09/07/2015



Фиг.4

Complex system of remote monitoring and diagnostic of grains state during storage contains system of grains state remote monitoring during storage, system of recirculating fumigation of grains, and system of grains preservation against parasitic attack. System of remote monitoring contains meters of the grain mass parameters. The meters are provided with gears of lifting and with junction boxes with installed measuring digital units. Each meter of the grains mass parameters is probe. Probe contains temperature sensor, air RH sensor, acoustic censor-analyser of motion activity of insects and sensor counting insects number. System of recirculating fumigation of grains icnludes phosphene generator with regulating shutter, fan and pipeline. The phosphene generator is equipped with dryer of recirculating gas/air mixture. Downstream the regulating shutter in the output branch pipe of the phosphene generator a vent branch pipe with tight lid is installed. System of grains preservation against parasitic attack includes nozzle to convert liquid insecticides in aerosol. The nozzle is connected with liquid insecticide tank. The nozzle is installed in the spraying chamber of liquid insecticides, the chamber is installed in the grain main line.

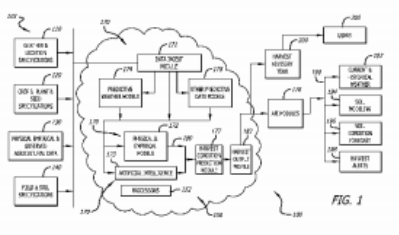
ver más...

Volver al índice

Boletín TIC Agro

Modelo de asesoría para cosechas utilizando análisis a nivel de campo de las condiciones climáticas, observaciones y entradas del usuario en el estado de las cosechas, en el cual una condición de cosecha predicha incluye una estimación de la tasa de sequía e inundación de los cultivos, y una estimación de los costos de combustible

Publicada el 06/07/2015



A modeling framework for evaluating the impact of weather conditions on farming and harvest operations applies real-time, field-level weather data and forecasts of meteorological and climatological conditions together with user-provided and/or observed feedback of a present state of a harvest-related condition to agronomic models and to generate a plurality of harvest advisory outputs for precision agriculture. A harvest advisory model simulates and predicts the impacts of this weather information and user-provided and/or observed feedback in one or more physical, empirical, or artificial intelligence models of precision agriculture to analyze crops, plants, soils, and resulting agricultural commodities, and provides harvest advisory outputs to a diagnostic support tool for users to enhance farming and harvest decision-making, whether by providing pre-, post-, or in situ-harvest operations and crop analyses.

ver más...

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Boletín TIC Agro

NOTICIAS

Centro UAS de Ohio avanza hacia la agricultura de precisión y la investigación sobre sensores

Publicada el 25/08/2015

Clark State Community College in Springfield, Ohio, now includes flying unmanned aircraft systems (UAS) as part of its new precision agriculture program, according to the Ohio/Indiana UAS Center (UASC). The new program is designed to prepare students for employment with companies using geospatial technologies, including geographic information systems (GIS) and GPS applied to agricultural production or management activities, such as pest scouting, site-specific pesticide application, yield mapping, or variable-rate irrigation.

ver más...

FarmLogs Flow elimina la recolección manual de datos de la producción agrícola

Publicada el 02/08/2015

FarmLogs Flow is the first connected machine product to generate instant yield maps. The small plug-in device integrates with the FarmLogs platform and automatically creates yield maps, eliminating the complex and time-consuming process of collecting, transferring, downloading and uploading yield files manually to get maps into software where they can benefit the farmer. With built-in cellular connectivity, the device plugs into a combine's existing ISOBUS port, which allows data to flow seamlessly into the FarmLogs platform while harvesting. It is compatible with all late model Case, New Holland, and John Deere combines. Yield data is safely and securely stored in a farmer's FarmLogs account along with crop health maps, field scouting notes and weather data.

ver más...

Boletín TIC Agro

Satélites y teléfonos móviles incrementan la productividad de los cultivos en Sudán

Publicada el 25/06/2015

Using satellite data and mobile phones, an innovative project funded by CTA has helped farmers in the Gezira irrigation scheme, Sudan, to more than quadruple their wheat yields while conserving water and other key inputs.

ver más...

Spectra Precision’s ofrece receptor flexible GNSS para topógrafos

Publicada el 23/06/2015

Spectra Precision has introduced its new SP60 GNSS receiver. Designed to meet the evolving needs of surveyors, the SP60 is a versatile solution combining next generation Spectra Precision GNSS technology, a high level of configuration flexibility and an innovative design, the company said. The SP60 is part of Spectra Precision’s latest portfolio of GNSS receivers specifically designed for the mainstream survey and construction applications such as cadastral, topographic, control, stakeout and network RTK.

ver más...

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Boletín TIC Agro

Gran potencial para la impresión 3D en agricultura

Publicada el 22/06/2015

Jack Hemenway describes the technology of 3D Printing as additive manufacturing in that “you are using common materials like power-composites, plastic material and metal to create an item,” says the vice president for Moss Enterprises. Speaking to farmers attending the Tools For The Future conference held by Successful Farming Magazine today, Hemenway went on to explain that some 3D printers can use only one of these three materials while others use a combination of two or three of the materials at once.

ver más...

Instan a agricultores a imaginar el futuro de la agricultura

Publicada el 22/06/2015

Brian David Johnson describes himself as a pragmatic futurist. “My job, my passion is looking into the future to see how advances in technology will impact a company,” Johnson explained to farmers attending the Tools For The Future conference Monday by Successful Farming magazine. “The pragmatic part of this is predicting what will work, what is practical.” In that regard, Johnson observes that the future of technology will look a lot like it does today. In the future a tractor will still basically be a tractor, for example. “Its just that that tractor will also be a computer,” he adds.

ver más...

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MERCADO

Cumbre sobre biomasa de algas presenta la última innovación en investigación sobre biología de algas y ecología de sistemas de algas

Publicada el 26/08/2015

The 9th Annual Algae Biomass Summit, taking place in Washington, DC, September 29th - October 2nd will showcase more than 30 oral presentations by leading research scientists and experts from universities, companies and several national laboratories in its Progress in Algal Biology and Algal Systems Ecology tracks. The sessions will inform technical audiences about the latest algae strain improvement methods involving 'omics' and genetic manipulation, and growth and cultivation methods that are making possible the wide-scale commercial production of algae-based products.

ver más...

Greengro Technologies lanza 'GreenGro Blackout System(TM)' – Invernaderos con privación de luz mejoran el rendimiento

Publicada el 20/08/2015

Greengro Technologies announced today that it has introduced the first in its planned series of automated retractable light deprivation greenhouse systems, complete with leasing and financing options and tailored crop and business insurance programs for the advanced agriculture and medical and recreational cannabis markets.

ver más...

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Boletín TIC Agro

EnWave anuncia exitosa instalación de máquina quantaREV(R) de 120kW para Bonduelle

Publicada el 24/07/2015

EnWave Corporation (TSX VENTURE: ENW) (FRANKFURT: E4U) ("EnWave", or the "Company") is pleased to announce that the Company has installed a 120kW quantaREV® machine for Bonduelle, a global leader in the production of frozen and canned vegetables, at a facility located in Quebec, Canada. This Radiant Energy Vacuum ("REVT") machine equips Bonduelle to produce tonnage of dehydrofrozen vegetables, a new, innovative way to materially enhance frozen vegetables. Bonduelle started the research & development with this equipment and with the fresh vegetables in June 2015.

ver más...

Arvato brinda experticia en la industria creciente de tecnología agrícola

Publicada el 09/07/2015

THRIVE Accelerator is a highly selective mentorship program identifying technology-enabled start-ups in the Precision Agriculture space. Ten start-up companies were selected and during the Forbes AgTech Summit in Salinas this week one of the ten will receive the "Thrive AgTech" disrupt award and will gain direct access to the top fresh agriculture companies in the Salinas Valley to help deploy their innovative technology.

ver más...

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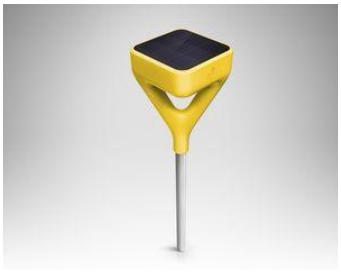
Edyn lanza sensor para jardines

Publicada el 01/07/2015



Edyn, the smart garden system that allows you to interact with and nurture your garden like never before, today announced general availability in North America for its flagship product, the Edyn Garden Sensor. Edyn educates users about their garden by collecting real-time data through the sensor and shares information and tips through the corresponding application, empowering users to save on water usage and ultimately make their plants thrive.

ver más...

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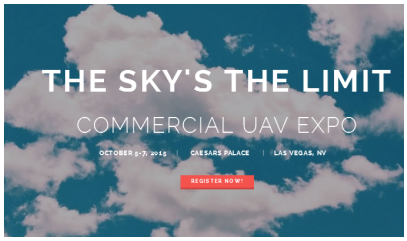
EVENTOS

Expo comercial de UAV

Publicada el 24/08/2015



October 5-7, 2015. Las Vegas, Nevada. Candid and unbiased, the goal of the conference is to share knowledge, best practices and the latest drone regulations among end users as the commercial use of UAS and UAV technology continues to grow.

ver más...

Conferencia de tecnología en maquinaria agrícola 2016

Publicada el 17/08/2015

Feb 8-10, 2016. Louisville, KY. usa. John was born in 1948 and raised on a six-generation farm in east-central Illinois. He graduated with honors from Rose-Hulman Institute of Technology in 1970 with a bachelor's in chemical engineering and a minor in economics.

ver más...

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Boletín TIC Agro

Innovación en ingeniería y tecnología para la seguridad alimentaria mundial

Publicada el 17/08/2015

Oct 24-27, 2016. South Africa. To produce and provide healthy and sade food in a sustainable manner to the rapidly growing world population.

ver más...

Workshop sobre fenotipado de plantas de alto rendimiento y vehículos aéreos no tripulados en agricultura

Publicada el 13/07/2015

August 17-18, 2015.Texas, USA. The goal of this workshop is to provide attendees an expert overview and keen practical insights into these two related and very timely research topics. Day 1 will feature speakers who are leaders in both fields and will focus on how UAVs and high-resolution remote sensing as well as automated sensor platforms can be used to efficiently measure phenotypic traits to facilitate advances in plant breeding and genetics. Day 2 will feature a UAV demonstration at the Texas A&M AgriLife Research Farm (buses provided), as well as afternoon break-out sessions.

ver más...

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